Clinical Section

LIFE PILED ON LIFE

The Second Annual Doctor David A. Stewart Memorial Lecture

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Mr. Chairman, President Smith, Members of the Sanatorium Board, Mr. Dean, Members of the Faculty of Medicine of the University of Manitoba, Ladies and Gentlemen:

Before launching into my address may I thank Dr. Adamson and the other members of his committee for this opportunity of delivering the second Annual Doctor David A. Stewart Memorial Lecture. Looking back on a close friendship of forty years, one holds it a pious duty to proclaim publicly what that friend achieved and what manner of man he was. When the Roman Catholic Church is considering canonisation it is the custom to select someone to raise objections to admission to the calendar of saints. The one charged with this painful duty is called "Advocatus Diaboli"—the Devil's Advocate. Let me assure you that it is not as a Devil's advocate that I appear before this court, nor even as the superior person to weigh with a cool aloofness the merits and demerits of the subject of this lecture. Frankly, I admit a prejudice in favor of Dr. Stewart, yet rather than deliver a eulogy, I propose to let his deeds speak for themselves.

One may fairly ask what is the purpose of a memorial lecture and what is to be gained by it. Why, when the Medical College students are entering the last drive down the stretch of the academic year, when we live among world-shaking events that threaten the existence of Britain, democracy, perhaps of civilization itself, should we pause to give even fleeting consideration to a man who has passed and gone? Let the dead past bury its dead! an uncompromising realist might exclaim. And yet is the realist actually so wise? In a devastating earthquake only those buildings survive whose foundations are solid. All of us will face our trials more bravely if we pause for a short hour to consider the example of a man who passed through his trials and came out as pure gold tried in the furnace. Even towards the end of pain-racked years Stewart had the spirit of Ulysses:

"Much have I seen and known; cities of men
And manners, climates, councils, governments,
Myself not least, but honoured of them all;
I am a part of all that I have met
Yet all experience is an arch wherethro'
Gleams that untravelled world, whose margin fades
For ever and for ever when I move.
How dull it is to pause, to make an end,
To rust unburnish'd, not to shine in use!
As tho' to breathe were life. Life piled on life
Were all too little."

It is to try to capture something of that spirit that we meet here today.

Ancestors

Midway in the course of the river Dee in Aberdeenshire lies the valley of Cromar, and here, in the earlier part of the nineteenth century, three family streams met that have more or less flowed together since that time. The Stewarts, Farquharsons and Fletchers neighbored, intermarried, and in the second half of that century founded homes near together in Canada, chiefly in the county of Kent in Ontario. This district was near the terminus of the underground railway whereby fugitive negro slaves were enabled to make their way to British soil and freedom prior to the American Civil War. David Stewart as a young boy knew the original Uncle Tom, the hero of Harriett Beecher Stowe's great novel. Many of the descendants of these three families remained in Ontario and distinguished themselves in the church and in medicine. Others made a second migration to Manitoba. Among these were Francis Beattie Stewart, his wife Elizabeth Farquharson with David and other children, and Elizabeth's brother James who became Home Mission Superintendent of the Presbyterian Church for Manitoba and the North-West Territories with a pastorate of twenty-four years at Pilot Mound. As for the Fletchers, in 1868 Rev. William Fletcher came west and ministered for four years as a Presbyterian missionary to settlements along the Assiniboine from Headingly to Portage la Prairie. The late Dr. A. B. Baird is authority for the statement that Mr. Fletcher's representation to the General Assembly of the Presbyterian Church was responsible for the institution of Manitoba College at Winnipeg. In the second decade of this century there came to Manitoba one of a later generation, Dr. George W. Fletcher, who is still practising in Winnipeg and who was until recently Professor of Oto-Laryngology in this University.

Francis Beattie Stewart and his wife were two of the most unselfish and high principled people I have known. They left their old home at Fletcher in Kent County, Ontario, to come to Manitoba in 1891. Here mission work of the Prebyterian Church claimed Francis Stewart's attention. He served at mission stations in Belmont, Carman, Rathwell and Morden, and died in June, 1914, just before the outbreak of the first world war. More than once I have worshipped in the little stone church at Clegg, north of Morden, where he preached, although never ordained as a minister. In the Clegg district dwelt the Bradshaw family. One of its members was Ida Kate who become the first social service nurse in the Winnipeg General Hospital and in 1915 married David Stewart.

Education

When the Stewart family moved to Manitoba, David was seventeen years of age. After attending Normal School in Winnipeg in 1893 he taught school at Morden and at the comparatively mature age of twenty-two he entered the Arts division of Manitoba College. As was inevitable from his family background he was destined for the ministry, and from Principal John M. King he absorbed Kant's doctrine of the categorical imperative and Calderwood's principles of ethics. Yet he could unbend at times. In a performance by the college dramatic society of that sparkling comedy, "The School for Scandal," he played the role of Joseph Surface, "the man of sentiment," who is discovered behind the screen with Lady Teazle by her indignant husband. He graduated in Arts in 1899, and then spent two years in the study of Theology and in service on mission fields.

Some phase of ill-health affected his voice and he renounced theology for medicine. Another incident confirmed him in his choice. In April, 1903, after he had completed a year in the Medical College, he was at Frank in the Crow's Nest Pass. On April 29th the top of Turtle Mountain which overhung the little mining town plunged down upon it and spread over the valley, killing sixty-five of the inhabitants and wounding

many. Stewart worked unremittingly side by side with Dr. G. H. Malcolmson in caring for the victims and was greatly impressed with the doctor's devotion to duty and his ability to relieve suffering. Stewart resumed his studies in the old college at the corner of Kate Street and McDermot avenue, and graduated in 1906 with the first class to occupy a building on the present site. During these four years he had to support himself. To do so he became a reporter for the Winnipeg Free Press and learned much from that dean of Canadian newspapermen, John Wesley Dafoe, who was then editor of the Free Press.

Then followed two years of interneship in the Winnipeg General Hospital. In the second year he was Senior Interne in Medicine, the first holder of that position, and he distinguished himself in clinical studies of typhoid fever then epidemic in Winnipeg. The first study made in association with another senior interne in 1907 was a modest analysis of 150 cases of the disease. The second was in collaboration with Dr. S. J. S. Peirce, now of Brandon, who presented an exhaustive clinical review of the disease as seen in Manitoba before the Annual Meeting of the American Health Association in August, 1908. More important, since it foreshadowed a faculty which he brought to perfection in later years—that of invoking unsuspected talent in others—was his interest in a public ward patient.

The Trapper Carlton

A trapper of the Rainy Lake district broke through the ice of that lake and was immersed up to his armpits for about four hours before being rescued by Indians. The paralysis of both arms which followed made it necessary to feed him and he was brought to the Winnipeg General Hospital under the care of Dr. A. W. Moody. Stewart was concerned first with the neurological aspects of the case, but soon his interest quickened to the man himself. He learned that the trapper, Carlton by name, was versed in the natural history of his lakes and woods, and that he had an inborn gift of expression. Stewart urged him to set down his nature stories for publication, but Carlton demurred that his paralyzed arms would not permit him to write. Undaunted, the interne provided an amanuensis and in this laborious fashion the trapper produced two nature stories, one dealing with the life history of a bear cub, the other of an old wolf driven out from the pack because of age. The former story, typed and illustrated with marginal drawings by Miss Jessie Stewart, was read aloud in the hearing of Dr. Louis B. Wilson, then pathologist of the Mayo Clinic, Rochester, Minnesota, and later Director of the Mayo Foundation. A keen lover of nature, he pronounced it equal to any of the animal stories of Ernest Thompson Seton. Later Carlton developed bulbar paralysis and lost the power of speech, but Stewart arranged a lettered board fixed to the foot of the bed so that Carlton, by means of a pointer strapped to his great toe, could rap out a message. When he finally died it was characteristic of Stewart that he personally saw Carlton's body placed reverently in the earth of a sunny slope in the Rainy River district where the trapper wished to be buried.

Tuberculosis in Manitoba

About 1905 a Women's Anti-Tuberculosis Society had been formed in Winnipeg with Miss Rathbone as visiting nurse. A Sanatorium Board was formed in the next year. These organizations awakened in the community some consciousness of the ravages of tuberculosis, but little of consequence was accomplished until 1908. In that year an International Congress on Tuberculosis was held in Washington, D.C., from September 21st to October 12th. Dr. Robert Koch, discoverer of the tubercle bacillus, passed through Winnipeg on September 14th en route from Japan to the Conference and was interviewed by a Free Press reporter. Internal evidence suggests that the reporter was D. A. Stewart, as the account of Dr. Koch's life and work ran to nearly a column. President Theodore Roosevelt was president of the Conference, and Dr. Edward L. Trudeau, of Saranac Lake, the father of sanatorium treatment for tuberculosis in America, was honorary president. From Winnipeg Dr. A. J. Douglas, Medical Health Officer of Winnipeg, Dr. Gordon Bell and Dr. R. M. Simpson of the Provincial Board of Health, who were also members of the Sanatorium Board, and Dr. H. H. Chown, Dean of the Medical College, attended and were deeply impressed by what they heard and saw. At the inaugural meeting of the Manitoba Medical Association on October 8th, Dr. J. R. McRae, of Neepawa, criticized the dilatory work of the sanatorium committee. Talk, he declared, could never build a sanatorium and it was high time that something definite was done and that speedily. He had not long to wait. At the dinner of the Manitoba Medical Association that evening, Dr. Chown was enthusiastic over the Conference and urged the establishment of a free tuberculosis dispensary. A few days later Dr. Douglas gave an exhaustive report to the Winnipeg City Council. He stated that three institutions were needed to fight tuberculosis—a free dispensary, a sanatorium, and a hospital for advanced cases. The first essential was to find an energetic and capable executive officer. After one false start, the medical members of the Sanatorium Board, Dr. R. M. Simpson, Dr. Gordon Bell and Dr. E. W. Montgomery, found the right man in the person of Dr. David Stewart who was destined to become the apostle of tuberculosis in Western Canada.

It was no light matter to pioneer in the struggle against tuberculosis. Manitoba was still a poor province as the great expansion of 1911 and 1912 had not yet begun. The question of the site for the sanatorium was settled only after several months of acrimonious debate, and public opinion with regard to the disease had to be altered from an attitude of fatalism to one of determined hope. It was the task of the young executive officer to travel through the length and breadth of the province, addressing groups of all kinds, urging the well-to-do to contribute to sanatorium funds. talking late into the night, writing at all spare moments, travelling in all sorts of conveyances and sleeping in cold and draughty hotels. It was not surprising that his health broke under the strain, and he was found to be suffering from the very disease he was seeking to prevent in others. Perhaps this seeming misfortune was a real benefit. He sought the cure at the fountian head, Saranac Lake, where Edward Trudeau was still living. After some months in the Adirondacks he was back at work again in November, 1910. As a biographer said of him, he did rather better than Saint Paul in that he saved others yet himself was not a castaway.

The site was finally fixed on the shore of Pelican Lake. near Ninette, the Provincial Government gave a grant of $25,000 and a further sum of $50,000 was contributed by municipalities and by private individuals. Work was begun on the older part of the present administration building and two pavilions, one for men and one for women. On May 20th, 1910, the first patients were admitted. There was accommodation for only sixty-five patients, money was scarce, equipment was still of the scantiest but enthusiasm ran high. The new sanatorium soon justified itself.

Not the least of the Superintendent's duties was to preach the gospel of tuberculosis in season and out of season, and rare was the scientific medical meeting in which Stewart's name did not appear on the programme. Once more his faculty of evoking talent came to the fore. In 1910 physical examination of the chest and microscopical study of the sputum were almost the sole methods of diagnosis. Soon it was realized that the X-ray could seek out the hidden depths of the chest better than the stethescope or the percussing finger. But where was Stewart to find an expert X-ray technician? In the Sanatorium was a young man with severe tuberculosis of the kidney. Peter McConnell

had had no medical or technical training, but he was intelligent, keen and possessed of a flair for scientific investigation. Stewart transformed him into a technician so expert that McConnell's glass plates of tuberculous chests were things of artistry on which the details of the extent of the disease were so clear that they could be read by the veriest tyro. In like fashion the Superintendent trained patients to be efficient laboratory technicians.

Widening Horizons

From 1910 onward horizons were ever widening. The war of 1914-18 brought many soldier patients to the Sanatorium and expansion was necessary. Incidentally Dr. Stewart was one of the Tuberculosis Consultants for the Federal Department of Defence, the other members being Dr. C. D. Parfitt of Ontario, Col. W. M. Hart of Saskatchewan, Dr. Ross Millar of Nova Scotia and Dr. J. R. Byers of Quebec. The use of tuberculin in treatment was tried but was soon abandoned. Heliopathy in summer and ultra-violet radiation in winter were found to be useful adjuvants in treatment. The intention had been that the Sanatorium should accommodate only early cases of tuberculosis, but it was soon realized that the great majority of patients reaching the sanatorium were far advanced and that provision had to be made for more hospitalization. The far advanced cases often presented evidence of tuberculous enteritis and colitis. Dr. Stewart and his associations studied this problem and published papers which contributed much to the earlier diagnosis and treatment of this condition. "Tuberculous Ulceration of the Intestines as a Complication of Pulmonary Tuberculosis" was the theme of addresses by Dr. Stewart before the Academies of Medicine at Toronto and Montreal and the Mayo Clinic in 1922 and 1923. This work was a distinct contribution to the subject of tuberculosis.

Surgery

The next great advance came in the application of surgery to the treatment of pulmonary lesions. At Ninette this was the more surprising since Stewart himself was not surgically minded. However, he was open to conviction and when the value of surgery in this connection was established, he did not hesitate to employ surgical measures in his institution. It is possible that his wife's illness contributed to this result. Mrs. Stewart contracted tuberculosis which did not clear up under rest and in 1923 she underwent the operation of thoracoplasty at the hands of Dr. E. W. Archibald of Montreal, one of the great pioneers in thoracic surgery.

In the following year the first operation of thoracoplasty in Manitoba was done on a Sanatorium patient. At first the operation was performed only in desperate cases, and the results were poor; but as the technique improved thoracoplasty was performed earlier and more frequently. Now it is applied in from 10 to 20 per cent. of all pulmonary cases and the mortality has been reduced from 33 per cent. to around 3 per cent.

Creation of artificial pneumothorax, the introduction of gas or air into the pleural cavity to effect collapse of the lung, had been tried at the Sanatorium about 1914. It was employed only as a last resort, and the results were so poor that it was abandoned for a few years. Not until chests could be studied with the use of the X-ray could it be used generally or intelligently. The first X-ray equipment was installed at the Sanatorium in 1919. Before long the X-ray plates were so good that the X-ray displaced the stethoscope as a means of diagnosis. Treatment with artificial pneumothorax was extended from its use in the occasional advanced case which appeared to be hopeless to a treatment of first choice for minimal tuberculosis cases. The proportion of patients with active pulmonary tuberculosis receiving this treatment increased from 2 or 3 per cent. to 60 per cent.

Other surgical procedures which have been employed are pneumonolysis, the cutting of adhesions in order to facilitate artificial pneumothorax; division, crushing or avulsion of the phrenic nerve to paralyze the diaphragm; the introduction of a paraffin pack and bronchoscopy. With the aid of the bronchoscope ulcerative lesions of the bronchi and trachea may be actually viewed and treatment applied directly to the lesions.

With the wider application of surgical measures, it was observed that smoother convalescence resulted when operation was performed in the Sanatorium than when patients were transferred to another hospital. This led to major chest surgery being undertaken regularly in the Sanatorium. Here again it is to be noted that Dr. Stewart developed from within his own medical staff a chest surgeon in the person of Dr. Herbert Meltzer.

Obstetrics

Another field of medicine which came within the orbit of tuberculosis was obstetrics. Not a few of the Sanatorium patients were young married women or young women who were considering marriage after their discharge from the sanatorium and it was inevitable that the question of the relation of pregnancy to tuberculosis should be raised Moreover his advice as a consultant was frequently sought in this connection. One of the many medical articles in his amazing literary output was one published in the Canadian Medical Association Journal in 1922 on "Pregnancy and Tuberculosis." It was thoughtful, well-reasoned and conservative. Even though since that date the application of surgery to pulmonary tuberculosis has resulted in a yet more conservative attitude being adopted, it is still worth reading. He advocated a complete chest examination early in every pregnancy, the consideration of tuberculosis as a possible factor in elevations of temperature during pregnancy or the puerperium, and the establishment of special hospital sections for the care of tuberculous women during and after delivery, and for their infants.

In another vein he wrote an article on "An Obstetrician Adventurer, Dr. Thomas McKeevor, 1812." Dr. McKeevor was a young Dublin obstetrician who was medical officer on "The Prince of Wales" which brought the first party of Selkirk Settlers to the shores of Hudson's Bay. In his narrative Dr. McKeevor described a wild storm in the Bay during which Mrs. McClain, wife of one of the settlers, was delivered. He was impressed also with the easy labours of Indian squaws.

Education of Patients

Very soon after the Sanatorium was opened Dr. Stewart realized that treatment of physical ailments was only a part of the cure. The tuberculous patient must not be permitted to vegetate; activity of the mind must be preserved and attention must be focused on the time when the patient on leaving the sanatorium had to take his place in the outside world. So the school teacher at the Sanatorium came to rank in importance only below the physician, the surgeon and the nurse. At the Ninette institution education was sought not only of the children and adolescents but of adults. Natural history became a favorite subject. The habits of the tiger salamanders who periodically come up from Pelican Lake and fall into the areas about the doors of the Administration Building were carefully studied and reported. It was almost a major crime to strip bark from the birch, "the white lady of the woods." The arrival and migration of birds were recorded. A careful record was kept of temperature ranges at the Sanatorium for several years. A museum was set up, no doubt with the advice and assistance of the late Norman Criddle, Dominion Entomologist, who lived near Ninette, and who was a personal friend of Dr. Stewart.

Growing out of Dr. Stewart's interest in the education of sanatorium patients was his recognition of the need of adult education in this province. He became identified with this movement and was its first president. The University honored him in 1927 with the degree of Doctor of Laws, and when the University was reorganized in 1936 he was appointed a member of the first Board of Governors.

Medical Education

Still another field in which he wrought valiantly was medical education. He was one of the first to recognize the unique value of a sanatorium in the training of medical students and young graduates. He brought the title of doctor back to its original meaning of teacher. He was appointed Lecturer in Medicine in 1918, Assistant Professor, 1920, and Associate Professor in 1921. About 1913 arrangements were made, and have continued to this day, for groups of medical students to live for two or three weeks in the sanatorium where they can be instructed in physical diagnosis, history taking and first-hand study of tuberculosis. The young graduates who passed through the sanatorium as members of the staff and who learned his methods and caught his spirit form a notable group in medicine from the Great Lakes to the Pacific: among them R. G. Ferguson, General Superintendent of the Saskatchewan Anti-Tuberculosis League, J. B. Ritchie, Baldur Olson, A. T. Mathers, J. D. Adamson, W. L. Mann, the late C. A. Barager, A. P. MacKinnon, Harvey Boughton, E. L. Ross and D. L. Scott to mention only a few.

Travelling Clinics

Horizons widened again in 1926 with the advent of travelling clinics. Not content to be the executive head of an institution, Dr. Stewart took all Manitoba for his parish. He did not wait for patients to be sent in by doctors or to come of their own volition, but he went out into the highways and byways to seek out the tuberculous sick and when necessary to compel them to come in. This he did not with the desire of magnifying his office but through recognition of the fact that only through the sanatorium seeking the patient could the early cases be detected and treatment applied when it was most useful. In recent years the province has been crossed, recrossed and criss-crossed by the vans of the travelling clinics. They go to over fifty centres. Yearly over ten thousand people are examined and stationary monthly chest clinics have been established at Brandon, Dauphin, Portage la Prairie and Selkirk. Who can tell how much all these clinics have contributed not only to the health and well-being of those examined but to the education of communities and indeed of the medical profession in public health?

Manitoba History

This crossing and recrossing of Manitoba stimulated a desire in Stewart's mind to know more of the early history of the province. With him to think was to act. He became a member of the Champlain Society, read omnivorously, examined at first hand the remains of early fur-trading forts of the Hudson's Bay Company, the North-West Company and the X.Y. Company, dug into mounds near Ninette which long antedated the coming of the white men, resurrected the Manitoba Historical Society and became its president and moving spirit. He wrote a scholarly article on the life of Sir John Richardson, second in command on Arctic expeditions with Sir John Franklin. It was inevitable that Dr. Stewart should come to be accepted as an authority on the history of Western Canada.

One of my red-letter memories is that of a September day in 1933 when Dr. Stewart, David Junior, the Stewart Criddles, the young school teacher, Miss Prowse, my son and I visited the site of Brandon House Number One of the Hudson's Bay Company. It is on the eastern bank of the Assiniboine near Treesbank, and with Dr. Stewart's help we could trace out the enclosure and the outline of the principal buildings with their fireplaces. The fort was near a small stream on which is an old beaver dam, and hard by it was an Indian burying ground. In this secluded spot time stood still and it required little effort of imagination to see Indians bringing canoes laden with furs, hides and pemmican to the mouth of the little creek, and the fort itself peopled with busy traders and clerks.

One of the historical subjects which particularly excited his interest was the coming of the Norsemen to North America. The finding of the Kensington stone with its runic inscription at the headwaters of the Red River of the North was the subject of one of his addresses. This led him to study the Icelandic sagas and out of this grew a feeling of respect and even of affection for the Icelandic people, the descendants of the old Vikings. This feeling was reciprocated, and one of Stewart's prized possessions was a drinking horn beautifully engraved with figures from the old mythology, the maid of the mountains and the dragon, presented to him by his Icelandic patients. He carried on a correspondence with a modern Viking, Vilhjalmur Stefansson, regarding the mysterious death of another Arctic explorer, Thomas Simpson.

Art

Art opened up another vista. The first manifestation of this was the adorning of the dining room of the Sanatorium at Ninette with railway posters designed by the foremost artists of England and Europe. A visit to the International Conference on Tuberculosis in Rome in 1928 seemed to stimulate his desire for artistic expression. Although he had no formal instruction in art, he experimented in dry-point, pencil sketching, and water colours. For several years his sketches appeared in the annual exhibitions of the Manitoba Society of Artists. One of the most striking of these pictures was the view from the window of his sickroom in the Winnipeg General Hospital of the smoking chimneys of Winnipeg on an early sub-zero morning.

Summary

What did Dr. Stewart see accomplished in the field of tuberculosis? In 1908 Dr. Douglas had stated that three institutions were necessary for Manitoba: a sanatorium, a free tuberculosis dispensary, and a hospital for advanced cases. Manitoba Sanatorium at Ninette was opened in 1910, King Edward Hospital for advanced cases in 1912, and the Central Tuberculosis Clinic in 1930. In 1931 St. Boniface Sanatorium threw open its doors. Travelling clinics began in 1926 and have expanded greatly. A central tuberculosis registry containing the names of all known cases of tuberculosis in the province and their possible contacts was set up in April, 1937. This registry is under the control of the Department and is housed in the Central Tuberculosis Clinic. As a result of the establishment of these institutions the death rate from tuberculosis in Manitoba has decreased from 94.2 per 100,000 population in 1910 to 50 per 100,000 in 1939. When Indians are excluded the death rate for the remaining population is now between 30 and 35 per 100,000. The proportion of far-advanced cases of tuberculosis now admitted to the Sanatorium is one-half of that obtaining in the early years of that institution. The best result of the quarter century, 1910 to 1935, as Dr. Stewart himself said, was that the menace of tuberculosis to the present and later health and happiness of young children now taking their first footsteps in the pathway of life had been cut to one-tenth. Manitoba, as he said, has become a healthier, cleaner province for these Children of the New Day to grow up in.

Life held many sorrows for Stewart: ill-health in student days, the attack of tuberculosis soon after graduation, the illness and invalidism of his beloved wife soon after their marriage and the particularly painful and long drawn-out malady which affected his

latter years and which finally closed his career. Yet he never gave way to depression. Miss Nan Moulton spoke thus of him in the Western Municipal News after his death in February, 1937: "Heine wrote, 'From my great sorrows I made little songs,' but Dr. Stewart always turned a defeat into a victory. This was the miracle of the man. This was the secret of his strength and power." With Rabbi Ben Ezra he could exclaim:

"Then, welcome each rebuff
That turns earth's smoothness rough,
Each sting that bids nor sit nor stand but go!
Be our joys three-parts pain
Strive, and hold cheap the strain,
Learn, nor account the pang; dare, never
grudge the throe!"

At the annual meeting of the Canadian Tuberculosis Association at Montreal in 1940, a luncheon was held in honour of Dr. George D. Porter who for thirteen years was the General Secretary during the formative years of the Association. Dr. Porter referred to the outstanding veterans in the movement: Governor D. A. McKinnon of Prince Edward Island; Dr. John Stewart, Dr. Hattie and Mrs. Mader of Halifax; Dr. Thomas Walter of Saint John; Professor Adami, Colonel Burland, Dr. La Chapelle and Dr. Dube of Montreal; Dr. Rousseau of Quebec; Sir William Gage, Sir Albert Gooderham and John Ross Robertson of Toronto; Sir George Perley, Dr. Montizambert and Dr. Peter Bryce of Ottawa; Sir Adam and Lady Beck of London; Mrs. Crerar of Hamilton; Colonel Leonard of St. Catharines; Dr. David Stewart of Ninette; Dr. Seymour of Saskatchewan; Judge Murphy (Janey Canuck) of Alberta, and Dr. Fagan of British Columbia. He quoted a favorite passage from "Rewards and Fairies," wherein Rudyard Kipling represented René Laennec, a prisoner of war in England, always working with his "Devil's ear pieces," as they called his wooden trumpets or stethescopes, and how one day Laennec asked his old friend Jerry to try one of the trumpets on his chest.

After listening, Jerry described what he heard as "sounds like breakers on a reef—a long way off."

"I shall drive on the breakers," was René's reply, "but before I strike I shall save hundreds, thousands, millions, perhaps, by my little trumpets."

This was the spirit of René Laennec, said Dr. Porter, and this was the spirit that animated many of our own workers in the past. A shining example among them was Doctor David Stewart. He was physically handicapped and far from well, but he was courageous and worked on to the end. He "drove on the breakers" but before he struck, David Stewart saved many lives. With the inspiration of such a man before us, we should never lose heart.

Pulmonary Embolism and Thrombosis*

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Pulmonary embolism is commonly thought of as a fatal and unexpected accident, which usually follows some operation on the abdomen. This conception is only partially correct, as many instances of embolism occur in persons who are convalescent from illnesses other than operations, and may follow operations which are not abdominal. Pulmonary embolism may follow fractures, delivery and many medical conditions. Also there are many instances of non-fatal embolism. Not infrequently there are warnings to suggest the possibility of a fatal embolism to come.

Usually the onset of pulmonary embolism is sudden with pre-cordial or substernal pain, cyanosis, dyspnoea and often with a sensation of impending disaster. There may be vomiting, pallor, perspiration and a cold clammy skin. There may be the signs of shock with a low blood pressure, or signs referable to the central nervous system, with unconsciousness and at times convulsions. Not infrequently a diagnosis of coronary disease is made. The electrocardiogram is of great value in making the differential diagnosis between a coronary attack and the acute cor pulmonale of pulmonary embolism.

Death from pulmonary embolism may take place in seconds, minutes or hours and at times only after days. How long a person survives an embolism probably depends on the size of the embolus, a massive embolus occluding the bifurcation of the pulmonary artery causes death quickly, whereas a shower of small emboli may not cause death for some time or indeed not at all. Small emboli may produce infarction, and infarction may precede the massive fatal embolism.

In post-operative pulmonary embolism and post-partum embolism the complication usually takes place during the first two weeks, whereas after trauma it usually takes place somewhat later.

The occurrence of pulmonary embolism must of necessity be preceded by a thrombosis of a vein. This primary thrombosis is usually in the veins of the lower extremities or pelvis. Small emboli may have their source in the right side of the heart, usually the auricle. Usually there are none of the signs commonly associated with thrombophlebitis. Unexplained fever or leucocytosis may be the only sign that all is not well with the convalescent patient.

Casual Factors

The factors which operate in the development of a thrombus are usually divided into three groups, (1) slowing of the blood stream, (2) injury of the endothelium, and (3) changes in the composition of the blood. These are probably not always of equal importance. Changes in the composition of the blood includes a host of different elements, e.g., prothrombin time, clotting time, bleeding time, calcium time, sedimentation rate, fibrinogen, infection, etc. Other factors which are of distinct importance, but which cannot be placed in the above three categories are age, sex, obesity, site of operation or trauma and disease. Age,

*Editor's Note—This is an abstract of a very informative and fully illustrated lecture delivered March 6th, 1941, under the joint auspices of the Faculty of Medicine, University of Manitoba and the Winnipeg Medical Society.

because of loss of muscular tone from inactivity may contribute to slowing of the blood stream. Obesity may act in the same manner. The site of operation or trauma may, because of bed rest required in treatment, affect the rate of flow of blood in a certain part of the body. Many of the operations which are commonly thought of as liable to be followed by thrombosis and embolism are done at ages when loss of muscular tone and relative inactivity are more or less expected as natural conditions. The additional complication of a diseased cardiovascular system may augment the other factors. Thus it may be seen that venous thrombosis and resulting pulmonary embolism are the result of the action of a host of variables, which may operate in different combinations in different individuals.

Post-Mortem Findings

From statistics published by many authors it appears that pulmonary embolism is found at post-mortem examination in from less than one percent to almost twelve percent of autopsies. This great difference in the incidence of embolism is probably to be explained by differences in the material examined. Also in post-operative statistics there is a variation in incidence from 0.02 to almost 1.0 percent. This difference probably has the same explanation. There is much published evidence to indicate that certain operations are complicated by thrombosis and embolism more frequently than others.

In 25,770 post-mortem records in the Department of Pathology of the University of Minnesota there were 2,500 instances of venous thrombosis and/or embolism. In 689 death was to be attributed to pulmonary embolism. That is an incidence of embolism of 2.6 percent. When age was taken into consideration it was found that while embolism may occur at any age it does so with increasing frequency as age advances. To add another factor, the cases were divided into those with and those without heart disease. Then embolism and/or thrombosis was found to be several times as frequent in persons with heart disease as in those with a sound heart, regardless of age. A study was then made of the cases according to four groups, post-operative, post-partum, post-traumatic and medical. These were again subdivided, particularly the post-operative and post-traumatic, according to the sites of operation and trauma and also according to age. As control, material was gathered from a number of sources bearing on the question of what time of life operations on different parts of the body were done. From this study it was concluded that apparently it was the age at which operations were done rather than the site of operation which was of importance. The same thing seemed to hold with regard to the embolisms which followed trauma.

Personal Notes and Social News

Conducted by Gerda Fremming, M.D.

Dr. and Mrs. R. O. McDiarmid of Brandon, Man., are receiving congratulations on the birth of a daughter (Margaret Ann) March 28th, 1941, at the Brandon General Hospital.

♡ ♡ ♡

Surgeon-Lieutenant John L. Silversides has arrived at Malta, where he is to be stationed at the Naval Hospital.

♡ ♡ ♡

Word has been received from somewhere in England of the birth of a daughter to Dr. and Mrs. Fred. A. Walton.

♡ ♡ ♡

Lieutenant-Colonel and Mrs. Lennox Arthur have arrived in Canada from overseas. After a brief visit in Winnipeg, they will leave for a holiday at the Pacific Coast.

♡ ♡ ♡

Dr. and Mrs. George Brock are rejoicing over the arrival of a baby daughter on March 26th, 1941, at the Winnipeg General Hospital.

♡ ♡ ♡

Dr. Ida Armstrong has returned from New York, where she was doing post-graduate work for a few weeks.

♡ ♡ ♡

Dr. Robert Black, a member of the Deer Lodge Curling Club, has been elected president of the Manitoba Curling Association for the coming year.

♡ ♡ ♡

Dr. and Mrs. W. A. McElmoyle are receiving congratulations on the birth of a daughter April 15th, 1941, at the Winnipeg General Hospital.

♡ ♡ ♡

Word was received on April 4th of the arrival of a baby daughter (Leslie Gail) to Dr. and Mrs. J. F. Bildfell, of Pangnirtung, Baffin Land, N.W.T.

♡ ♡ ♡

Dr. E. J. Ryall of Somerset, Man., who has been confined to his bed for the past eight months, is now making favorable progress towards recovery. We trust that with the advent of warmer weather, Nature will combine with medical science and make it possible for Dr. Ryall to recuperate speedily.

♡ ♡ ♡

Captain Ruvin Lyons, of the C.A.S.F., is at present stationed at Aldershot, N.S.

♡ ♡ ♡

Dr. I. Stoffman was married on March 30th, 1941, to Miss Freda Green. After the ceremony Dr. and Mrs. Stoffman left by motor for Western points. They will reside in Yellowgrass, Sask.

Major C. Stuart Musgrove, R.A.M.C., son of Dr. W. W. Musgrove, of Winnipeg, has been appointed D.A.D.M.S. to the 4th Corps in England. On April 10th, 1941, Mrs. Musgrove presented the Doctor with a baby girl (Lesley Patricia). Mrs. Musgrove was formerly Miss Patricia Cooney, daughter of Alderman and Mrs. Leslie Cooney, of Winnipeg.

♡ ♡ ♡

Dr. and Mrs. W. A. Howden, 271 Beaverbrook, formerly of Neepawa, Man., are celebrating the arrival on April 22nd at the Winnipeg General Hospital, of twin boys whom they have named William Alexander and Donald John.

♡ ♡ ♡

Captain S. A. Boyd has been transferred from the Cameron Highlanders to No. 5 Base Hospital somewhere in England.

♡ ♡ ♡

Dr. Q. D. Jacks, formerly of Steinback, Man., is now located at Brandon, Man.

♡ ♡ ♡

Dr. William Jackson Elliott, only son of Dr. and Mrs. William James Elliott, of Brandon, Man., was married Saturday, April 26th, to Miss Jane Patterson, younger daughter of Mr. and Mrs. John Arthur Patterson, of Winnipeg.

♡ ♡ ♡

Dr. Fred. Jackson left for Washington, D.C., to attend the Annual Conference of the State and Provincial Authorities Association of North America.

♡ ♡ ♡

Golf—The Annual Meeting of the Winnipeg Medical Golf Association was held in the Medical Arts Club-Room on April 21st for the election of officers for 1941 and the distribution of prizes. The following officers were elected: President, Dr. W. A. Gardner; Vice-President, Dr. H. D. Kitchen; Secretary, Dr. W. E. R. Coad; Treasurer, Dr. J. R. W. Nicholson. The following trophies were presented—**Manitoba Medical Association Cup** won by Dr. G. Adamson; **Chas E. Frosst & Co. Trophy** won by Dr. A. G. Meindl; **Fisher-Burpe Trophy** won by Dr. W. G. Campbell.

It is expected that the first monthly tournament for 1941 will take place the third Wednesday in May. Every golfer is cordially invited to attend each monthly tournament throughout the season.

♡ ♡ ♡

The *Review* is always glad to receive items of a personal or social nature for this page; however, as the *Review* goes to press a week in advance of publication date, contributions must be in by the 20th of the month preceding date of issue.

NEW!

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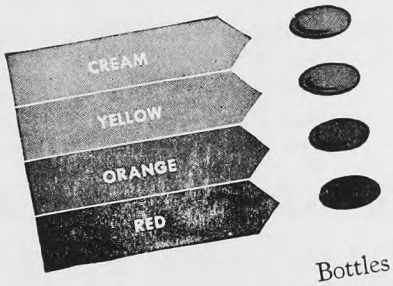

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Editorials and Association Notes

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72nd Annual Meeting of Canadian Medical Association Winnipeg, June 23-27, 1941

No effort is being spared by the numerous Local Committees to make the forthcoming Canadian Medical Convention notable in the medical annals of Manitoba. It is the most important medical convention in Manitoba since the joint meeting of the British and Canadian Medical Associations in Winnipeg in 1930.

The Scientific Programme was published in the April number of the Canadian Medical Association *Journal,* and will be given in full in the June number of the Manitoba Medical *Review.*

The Entertainment Programme for men includes two luncheons, two dinners and a golf tournament. That for the ladies only, comprises a dinner; and a breakfast party at the Motor Country Club. Social functions at which both sexes will be present include the ceremonial inauguration of Dr. G. S. Fahrni, the new President, followed by a dance; an afternoon reception at the St. Charles Country Club by Dr. and Mrs. Fahrni, and a reception at Government House by His Honor the Lieutenant-Governor and Mrs. R. F. McWilliams.

In the by-laws of the Canadian Medical Association it is laid down that only members of the Provincial Associations can join. This means that for a Manitoba doctor to attend the meetings, it is necessary for him to pay the ten dollar fee of the Manitoba Medical Association, plus the eight dollar fee of the Canadian Medical Association (which includes the Canadian Medical Association *Journal*).

The speakers and subjects arranged for the General Sessions are as follows:

Valedictory Address by the President
Dr. Duncan Graham, Toronto.

Dr. William F. Braasch, Rochester, Minn.
The surgical kidney as a factor with hypertension.

Dr. Charles Hunter, Winnipeg
Dizziness from the internist's standpoint.

Dr. F. W. Jackson, Winnipeg
Some observations on maternal care.

Dr. A. F. Menzies, Morden
Post-war medical problems.

Dr. Gavin Miller, Montreal
Recent advances in the surgical approach to carcinoma of the large bowel and rectum.

Dr. Rustin McIntosh, New York
Jaundice.

Dr. Kenneth G. McKenzie, and
Dr. E. H. Botterell, Toronto
The common neurological syndromes produced by pressure from extrusion of the intervertebral disc. (Illustrated by coloured film).

Dr. G. E. Richards, Toronto
Ten years' progress in the radiotherapy of oral cancer. Present methods and present results.

Dr. C. D. Parfitt, Toronto
The Osler Lecture.

Dr. Wallace Wilson, Vancouver
Whither Medicine!

Dr. Ralph M. Tovell, and
Dr. Curtiss B. Hickcox, Hartford, Conn.
The present status of cyclopropane.

♡ ♡ ♡

The Ladies' Publicity Committee requests that each doctor show the above editorial to his wife, and also draw her attention to the complete Ladies' Programme to be published in the June issue of the *Review.*

ABSTRACTS

Vole Vaccine versus B. C. G.

Wells, A. Q. and Brooks, W. S.
Brit. Jour. Exper. Path. 1941, 21:104

The wild vole suffers from a tuberculosis-like disease due to an acid-fast bacillus which is innocuous to guinea pigs, unless given in huge doses. It can be cultured on Dorset's egg medium. Three guinea pigs innoculated with vole bacillus were injected with bovine T.B. 9 months later. When killed 6 months later they showed only small local caseous lesions, whereas the uninnoculated controls had extensive generalized tuberculosis. In the next experiment 5 guinea pigs were given 1 mg. of vole culture, 5 were given .1 mg. and 5 were not innoculated. Three months later all 15 animals were injected with human T.B. All survivors were killed after 3 months. The first 5 had small local abscesses only, the second 5 had lesions rather more marked, and the 5 controls had died with extensive generalized tuberculosis.

The last experiment was to compare vole vaccine with B.C.G. in guinea pigs. Eleven of 15 animals protected by vole vaccine before being given T.B. showed only small local abscesses after 11 weeks. Eight animals "protected" by B.C.G. showed generalized tuberculosis, and 16 controls showed extensive generalized tuberculosis. —F.G.A.

Orthostatic Hypotension Treated by "Head-Up" Bed

MacLean, Alex. R. and Allen, E. V.
Jour. Amer. Med. Ass'n. 1940, 115:2162

Orthostatic hypotension is characterized by morning exhaustion, dimness of vision, and syncope on assuming the erect posture. The authors attribute this syndrome to inadequate venous return.

The diagnosis is made by finding a marked fall in blood pressure on assuming the erect posture in the morning, or by syncope occurring within 10 seconds when the patient tries to support a column of mercury 40 mm. high by blowing. Such cases have formerly been treated by ephedrin or paredrin with some success. MacLean and Allen report that where such patients sleep on a bed with its head elevated 18" (on kitchen chair seats) the morning hypotension no longer occurs. Return to a flat bed brings back the symptoms. Details of four cases are given. Two patients were able to compensate somewhat for the orthostatic hypotension by developing an orthostatis tachycardia. —F.G.A.

Dr. A. R. MacLean, son of James A. MacLean, former President of the University of Manitoba, graduated in medicine in Manitoba in 1934. He is now on the permanent staff of the Mayo Clinic in the neurological department.

Effect of Belladonna on Appetite

Greene, J. A., Jour. Lab. & Clin. Med. 1940, 26:477

The author states that he was able to reduce the appetite of 40 out of 45 obese patients by Tr. Belladonna m.x t.i.d.a.c. Some patients were given Bromide or Phenobarbital in addition. No figures of weight reduction are given. Benzedrine will also diminish appetite but has the disadvantage for some patients of elevating the blood pressure. —F.G.A.

VICTORY LOAN, 1941

Plans and preliminary work are now going forward in preparation for the next War Loan.

The people of Canada will be asked to assist the Government to an extent never before required. The Doctors of this province will be expected to do their full part in this vitally important task.

The Government must have this money, and this loan has to be fully subscribed by the people of Canada even if sacrifices are necessary. It is hoped that the Doctors will do their share in critical times like this. WE HAVE TO WIN THIS WAR!

The Navy, The Army, The Air Force Require Medical Officers

The Manitoba Medical Association is continually receiving requests for Medical Officers from all branches of the Services. If it is your intention to join up, further information may be obtained from the Manitoba Medical Association, 102 Medical Arts Building, Winnipeg.

OBITUARY

MRS. H. A. HIGGINSON

Mrs. H. A. Higginson, widow of the late Dr. Henry Ahern Higginson, died in Montreal, March 27th, 1941. A resident of Winnipeg for more than forty years, she left eighteen years ago to make her home in Montreal. She was one of six musical enthusiasts who in 1894 met to form the nucleus of the Women's Musical Club. Later she was for many years honorary president of that body, and she also started the Lenten twilight recitals in St. Luke's Church.

Many of the older practitioners will remember Dr. Higginson, who practised in Winnipeg in the latter part of the last century. His house and office were at the corner of Donald and Graham where Eaton's store now stands. With extensive post-graduate experience, he was soon appointed to the staff of the Winnipeg General Hospital and was a demonstrator in anatomy at Manitoba Medical College. An attack of laryngeal diphtheria in June, 1895, cut short a most promising career.

Department of Health and Public Welfare

Silver Nitrate Distributed In One Ounce Bottles

During 1940, in Manitoba, three cases of Ophthalmia Neonatorum were reported. For the past number of years, a similar record has been the case and we may be justifiably proud of it.

For the last twelve years, the Division of Disease Prevention has been supplying wax ampoules of 1% silver nitrate to any physician or hospital in Manitoba, who wished to make use of this service. In 1940, sufficient of this material was distributed for 3,108 treatments—900 of these being supplied for use in the city of Winnipeg, the remainder being sent out through the province.

From the blue birth notification cards sent in to the Department of Health and Public Welfare, it has been found that a number of physicians are not recording the type of prophylactic drops—if any, that they are using. The Department is urging the use of the 1% silver nitrate solution which is obtainable free of charge from the Division of Disease Prevention. Although "other substances have been proposed and tried, no substance is known to be as reliable as silver nitrate, which should be used in all cases, especially when there is any reason for believing that the mother is infected with the gonococcus." (Rosenau).

Several months ago it was decided to have the 1% silver nitrate solution put up in 1 ounce size, dark bottles with an eye dropper attached to the screw top, instead of in wax ampoules. Put up in this fashion, the solution should be easier to use. Each bottle is dated, and is of value only for one year after the date stamped on the label. It should be kept in a dark, cool place. If any sediment appears in the solution, it is valueless and should be discarded immediately.

Write to the Division of Disease Prevention, of the Department of Health and Public Welfare when you wish to obtain silver nitrate. —*A.M.S.*

Industrial Safety

The medical profession has long since adopted the principle of prevention being better than cure. There can be no more practical application of this principle than in the field of safety for industrial workers. Industry has gone a long way along this road and should be justly proud of its safety achievements. In recent years the great majority of responsible employers have reached a realization of the value of accident prevention to their business. Apart altogether from the humane attitude, which of course, is an important one, employers have found that accidents disrupt their business, deprive them of valuable workmen and reduce production which in turn affects profits. The workers themselves at one time considered safety first efforts to be a fad and as something to be tolerated because the firm was interested in it. In spite of all records to the contrary they prided themselves on being well able to take care of themselves without any paternal assistance. Safety education has proved to them that they were wrong, that a man is no match for a fast moving and merciless machine and that you can replace the parts of a machine but could secure no spare parts for lost eyes, fingers, arms or legs. Today it can be truly said that all concerned in Industry have accepted Safety as a necessary part of their operation and of their job. The cost of accidents is a burden on everyone. The worker immediately has his earnings reduced even if receiving compensation, which pays only two-thirds of his ordinary wages at most. He also has to suffer the pain and misery which injuries impose.

To be successful, accident prevention must be a properly organized effort. It is never sufficient to carry out a campaign for a few weeks and then let it drop. It must be a constantly sustained endeavour included as an integral part of the business and the workers routine. Neither the management nor the workers can succeed without full co-operation by both. A plan must be adopted to include an equitable representation from the management and the staff. The questions to be considered must be met with sympathy and understanding. Until and unless all parties to the plan are prepared to be tolerant and to be possessed of a determination to achieve safety as a co-operative effort little success will be forthcoming. In order to benefit by experience all accidents should be investigated by a representative committee which has power to make recommendations to the management and also to the workers. The Department of Labour is ready and willing at all times to assist in promoting safety organizations in Industry and is constantly alert to have any dangerous conditions remedied.

Not the least contribution to the cause of Safety in Industry has been the training of staffs in First Aid to the Injured in classes organized and taught by this Department. Thousands have been taught this subject and not only have accident victims benefitted by the rendering of skilled First Aid, but accident records have been improved through the influence of this subject in producing a safety consciousness.

Promote Safety—It Pays.

W. TREVOR DAVIES,
Assistant Chief Inspector
In Charge of Accident Prevention.

COMMUNICABLE DISEASE REPORT
February 26th - March 25th

Measles: Total 530—Winnipeg 124, Brandon 54, Flin Flon 46, Portage City 40, Unorganized 28, Portage Rural 17, Pipestone 14, Edward 13, Melita Town 13, St. Boniface 13, Manitou Village 11, Kildonan East 10, Pembina 10, Woodlea 10, Roblin Rural 9, Tache 9, Arthur 7, Cartier 6, Silver Creek 6, Albert 5, Brenda 4, Franklin 4, Kildonan West 4, Sifton 4, St. Laurent 4, Ethelbert 3, Napinka Village 3, Plum Coulee 3, Fort Garry 2, McCreary 2, Rivers 2, St. Andrews 2, St. James 2, Tuxedo 2, Wallace 2, Carberry Town 1, Hamiota Rural 1, Hamiota Village 1, Hillsburg 1, Labroquerie 1, Lawrence 1, North Norfolk 1, South Norfolk 1, Rockwood 1, Rosser 1, Shoal Lake Village 1, Siglunes 1, Stonewall 1, Ste. Anne 1, St. Vital 1, Teulon Village 1, Transcona 1, Virden Town 1, Woodlands 1 (Late Reported: Silver Creek 12, Flin Flon 5, Roblin 2, St. Clements 1, Sifton 1, Rossburn 1, Whitemouth 1).

German Measles: Total 440—Brandon City 200, Kildonan East 55, Kildonan West 45, Unorganized 31, Portage City 18, Shoal Lake Village 17, North Norfolk 11, St. James 11, Woodlea 10, Labroquerie 9, Harrison 7, Melita Town 4, Argyle Town 3, Arthur 3, Hamiota Village 3, Lawrence 3, Shoal Lake Rural 2, Silver Creek 2, Coldwell 1, Deloraine Town 1, Fort Garry 1, St. Boniface City 1, St. Clements 1 (Late Reported: Brandon 1).

Mumps: Total 147—Winnipeg 87, Flin Flon 35, St. Boniface City 11, Kildonan East 3, Coldwell 2, Labroquerie 2, Fort Garry 1, Swan River Rural 1 (Late Reported: Flin Flon 3, St. Boniface 2).

Chickenpox: Total 121—Winnipeg 85, Transcona Town 9, St. James 8, Brandon City 2, Kildonan East 2, St. Boniface 2, Deloraine 1, Fort Garry 1, South Norfolk 1, Roblin Rural 1, St. Andrews 1, Ste. Anne 1 (Late Reported: Kildonan West 3, Roblin Rural 2, Fort Garry 1, Lawrence 1).

Scarlet Fever: Total 40—Winnipeg 15, Portage City 7, Portage Rural 5, Transcona 2, Brandon 1, Carman Town 1, Cartier 1, Rhineland 1, Roland 1, Silver Creek 1, St. Boniface 1, St. Vital 1 (Late Reported: The Pas 2, Daly 1).

Influenza: Total 33—Carberry Town 9, Brandon 1, Hamiota 1, Hamiota Village 1, Kildonan East 1 (Late Reported: Lorne 2, Cameron 1, Clanwilliam 1, Dauphin Town 1, Dufferin 1, Eriksdale 1, Glenella 1, Glenwood 1, Minto 1, Neepawa 1, Portage City 1, St. Boniface 1, St. Clements 1, St. Vital 1, Whitewater 1, Woodworth 1, Unorganized 1, Brooklands 1, St. James 1).

Tuberculosis: Total 31—Winnipeg 17, Selkirk 3, Kildonan East 2, St. Boniface 2, Gimli Rural 1, Portage City 1, Rockwood 1, Springfield 1, Thompson 1, Transcona 1, Westbourne 1.

Whooping Cough: Total 26—Unorganized 7, Winnipeg 2, Brandon City 2, Minnedosa Town 1, St. Vital 1 (Late Reported: Archie 4, Franklin 3, Brandon 3, Hanover 1, Kildonan West 1, Minnedosa 1).

Pneumonia Lobar: Total 12—Brandon 3, Hamiota Village 1, Kildonan East 1, Lorne 1, St. Laurent 1 (Late Reported: Portage City 1, Rockwood 1, St. Boniface 1, Tache 1, Unorganized 1).

Meningococcal Meningitis: Total 9 — Winnipeg 3, Brandon 2, Whitemouth 2, Rosedale 1, St. Boniface 1.

Erysipelas: Total 8—Winnipeg 4, Portage City 2, Tuxedo 1, Whitemouth 1.

Diphtheria: Total 6—Winnipeg 3, Gladstone Town 1, Portage Rural 1, Neepawa 1.

Typhoid Fever: Total 2—Gladstone 1, Westbourne 1.

Venereal Disease: Total 119—Gonorrhoea 84, Syphilis 35. (February Report).

DEATHS FROM COMMUNICABLE DISEASES
February, 1941

URBAN—Cancer 38, Tuberculosis 9, Influenza 8, Pneumonia Lobar 7, Pneumonia (other forms) 8, Syphilis 5, Cerebrospinal Meningitis 2, Measles 1, Scarlet Fever 1, other deaths under one year 17, other deaths over one year 174, Stillbirths 12 (Late Reported 1). Total 283.

RURAL—Cancer 19, Influenza 15, Pneumonia Lobar 6, Pneumonia (other forms) 13, Tuberculosis 7, Measles 1, Whooping Cough 1 (Late Reported: Pneumonia Lobar 2), other deaths under one year 18, other deaths over one year 130 (Late Reported: over one year 5), Stillbirths 8. Total 225.

INDIANS—Pneumonia 7, Tuberculosis 4, Diphtheria 1 (Late Reported: Influenza 2, Tuberculosis 3, other deaths under one year 7, other deaths over one year 3 (Late Reported 2). Total 29.

Disease	Manitoba Feb. 26-Mar. 25	Ontario Feb. 23-Mar. 22	Saskatchewan Feb. 23-Mar. 22	Minnesota Feb. 23-Mar. 22
Anterior Poliomyelitis		1		1
Meningococcal Meningitis	9	56	4	2
Chickenpox	114	1,250	78	562
Diphtheria	6	3	5	2
Erysipelas	8	7	7	3
Influenza	13	385		77
Epidemic Encephalitis		1		1
Measles	507	4,412	955	32
German Measles	439	8,349	676	
Mumps	142	1,019	96	
Puerperal Fever			1	
Scarlet Fever	37	845	17	214
Septic Sore Throat		58	1	
Smallpox			2	23
Tuberculosis	31	192	38	153
Typhoid and Paratyphoid Fever	2	6	2	1
Undulant Fever		5	1	
Whooping Cough	13	688	43	337

For the four week period ending March 25th you will note that Manitoba has a slight increase in the number of cases of meningococcal meningitis. These are sporadic, not epidemic, and should be watched for. Measles are still plentiful but beginning to wane we hope.

Ontario is having quite a few cases of meningococcal meningitis and, like ourselves, many cases of measles and German measles. Scarlet fever is also causing some trouble.

Smallpox shows two cases in Saskatchewan and twenty-three in Minnesota—none near our borders.

North Dakota did not send reports to us for this period.

By the time this is in print the roads should be drying up and it will be time for vaccinating and toxoiding. How about it? Are the little ones in your district immunized? Let us know what you require.

Summer Diarrhea in Babies